

instructions for call routing. The databases contain information such as whether a customer will accept collect calls, where calls should be routed when the called number has been ported, where toll-free calls should be routed, and the customer names associated with particular numbers – information that is used for Caller ID.

When a CLEC purchases ILEC switching, a CLEC's need for ILEC signaling is absolutely critical.³⁴⁹ An ILEC's switching element works in tandem with the ILEC's signaling network; thus, unbundled ILEC switching is simply inoperable without access to the ILEC's corresponding signaling network.³⁵⁰ ILECs therefore must continue to unbundle their signaling networks in connection with unbundled switching.

Even when the CLEC is using its own switch, ILECs must provide requesting carriers with unbundled access to the ILEC's signaling network. Although CLECs using their own switches theoretically could create their own signaling network or use that of a third-party vendor, the Commission has concluded that "requiring a requesting carrier to obtain signaling from alternative sources would materially diminish its ability to provide the services it seeks to offer, due to the quality differences between the signaling networks available from the incumbent LEC and those available from alternative providers of signaling."³⁵¹ Nothing has changed since the Commission issued the *UNE Remand Order* that would alter this conclusion.³⁵² Third-party signaling networks are not as ubiquitous as the networks of the ILECs and do not have the redundancy required to protect against harms caused by outages. Third-party vendors at this time only have geographically dispersed (*i.e.*, not local) STPs,³⁵³ which are typically used by smaller long distance networks.

³⁴⁹ *Ku Declaration* at ¶ 4.

³⁵⁰ *Id.* at ¶ 4.

³⁵¹ *UNE Remand Order* at ¶ 383.

³⁵² *Ku Declaration* at ¶¶ 2, 5.

³⁵³ An STP is a signal transfer point – in effect a signaling switch.

Regardless of the quality of alternative signaling networks, CLECs must always have access to the ILECs' signaling networks to route their calls and access call-related databases.³⁵⁴ For example, when a call travels from the CLEC's network to the ILEC's network, the CLEC must be able to transmit signals through the ILEC's signaling network to determine which routes are least congested at a particular moment, and thus determine the best routing for a call. Moreover, because an ILEC's call-related databases are connected to the ILEC's signaling network, the CLECs need access to the network in order to obtain the information in the databases.³⁵⁵

Thus, CLECs forced to obtain signaling from a third party rather than the ILEC would suffer diminished performance. Finally, if CLECs were not ensured access to ILEC signaling networks when they deployed their own switches and were instead forced to rely on inferior alternatives, many CLECs likely would refrain from deploying their own switches. Requiring unbundling of signaling networks would therefore remove a significant disincentive to such deployment and thus help spur switch-based competition.

b) Call-Related Databases.

The Commission should continue to require unbundling of ILECs' call-related databases, because competitors would be materially impaired in offering services if denied access to these databases. Nothing has changed since the *UNE Remand Order* to warrant a change in the rule that ILECs must unbundle call-related databases.³⁵⁶ As noted above, one of the primary functions of a signaling network is to access call-related databases that supply information or instructions used for billing or routing of calls or provisioning of various features. Call-related databases include, but are not limited to, the Toll Free Calling Database, 911 Database, LIDB, AIN Databases, Calling Name

³⁵⁴ *Ku Declaration* at ¶ 6.

³⁵⁵ *Id.*

³⁵⁶ *Id.* at ¶ 2.

(CNAM) database, Operator Services/Directory Assistance (OS/DA) databases, and number portability databases.

A CLEC that is using unbundled switching must, of necessity, use the ILEC's call related databases.³⁵⁷ The ILEC switch cannot query the ILEC databases for calls originating with ILEC customers and CLEC databases for calls originating with CLEC customers.³⁵⁸ A CLEC that is using its own switches also must be able to access ILEC databases, because there are no alternatives of comparable quality and ubiquity to the ILECs' databases.³⁵⁹ Moreover, much of the information contained in the ILEC databases to which CLECs need access simply cannot be duplicated by a CLEC or third-party vendor.³⁶⁰ A CLEC or third-party vendor cannot develop its own LIDB without access to the ILEC's LIDB, for example.³⁶¹

Even where it is theoretically possible for CLECs to duplicate the ILECs' call-related databases, it would significantly impair competition to require them to do so immediately. CLECs generally lack the economies of scale needed to justify developing such databases at present.³⁶² In addition, it takes time and significant capital to develop these databases. Even if CLECs eventually were able to develop these databases, precluding CLECs from accessing ILEC databases before they develop the necessary databases on their own would preclude CLECs from offering services to their customers that depend on the information in these databases. This would significantly harm CLECs

³⁵⁷ *Id.* at ¶ 7.

³⁵⁸ *Id.* at ¶ 4.

³⁵⁹ *Id.* at ¶ 8.

³⁶⁰ *Id.*

³⁶¹ *Id.*

³⁶² *Id.* at ¶ 9.

who are already in the market. It would also constitute a significant barrier to market entry given the economies of scale in establishing these databases.³⁶³

c) Access to the CNAM Database.

The Commission clarified in the *UNE Remand Order* that CNAM is a call-related database, and that ILECs must provide access to it as a UNE.³⁶⁴ The Commission required access to CNAM, and other call-related databases, to be provided by means of physical access at the signal transfer point (STP) linked to the unbundled database. The Commission did not specifically address whether download or bulk access, as opposed to per-query access, is required, however. As a result, some state commissions have found that the FCC's rules do not require ILECs to provide CNAM downloads when requested.³⁶⁵ The Commission should specify that ILECs are required to provide access to call-related databases, such as CNAM, via batch downloads, so that switch-based CLECs can maintain their own CNAM databases.

CNAM is a database that contains the name of the customer associated with a particular telephone number. Access to the ILEC's CNAM database information is critical in order for a competitor to provide services such as Caller ID. When a terminating customer has Caller ID, a query is sent from the terminating switch to the CNAM database to retrieve CNAM information about the calling party (name and number), which is then displayed to the terminating subscriber. ILECs are the sole providers of CNAM database information for the vast majority of local customers.³⁶⁶

³⁶³ *Id.* at ¶¶ 9-10.

³⁶⁴ *UNE Remand Order* at ¶ 406.

³⁶⁵ See *Qwest Communication, Inc.'s Section 271 Application*, ACC Docket No. T-00000 A-97-0238, Second Supplemental Report on Qwest's Compliance With Checklist Item No. 10, ¶ 55 (Feb. 28, 2000) ("The FCC has defined call-related databases and held that this element is accessed through the Signaling Transfer Point (STP), not via a bulk download.")

³⁶⁶ Joint Declaration of John Gallant and Michael Lehmkuhl, provided here as

Thus, competitive carriers must have access to the information in the ILEC's CNAM database to determine the originating number for most calls. Clearly, CLECs would be impaired in their ability to offer service without access to the ILECs' CNAM databases on an unbundled basis.

Indeed, for switch-based CLECs to have access to this UNE in a nondiscriminatory manner, they must have access to the CNAM database via batch download.³⁶⁷ Access to the database via batch downloads will enable competitors to create their own CNAM databases, thereby providing competitors the same control over the CNAM data as is enjoyed by the ILEC.³⁶⁸ In providing Caller ID services, for example, batch downloads would enable CLECs to better ensure that information was retrieved in time to display to the customer. If a CLEC tried to create its own database without receiving bulk access, the database would be woefully incomplete.³⁶⁹ The CLEC would have to check its own database for the number of the calling customer and then check the ILEC's database if the information was not in its own database, all in time to

Attachment F (*Gallant/Lehmkuhl Declaration*) at ¶ 5.

³⁶⁷ See, 47 USC § 251(c)(3). Also see *Michigan Public Service Commission's Own Motion to Consider Ameritech Michigan's Compliance with the Competitive Checklist in Section 271 of the Federal Telecommunications Act of 1996*, Case No. U-12320, Opinion and Order (Dec. 20, 2001) at pp. 16-20. The Michigan PSC found that Ameritech must permit CLECs to download the CNAM database, because the CNAM database is a UNE and must be provided on a nondiscriminatory basis.

³⁶⁸ *Gallant/Lehmkuhl Declaration* at ¶¶ 10, 12. As the director of the Tennessee Regulatory Authority noted, requiring the ILEC to provide CNAM on a batch basis "... is consistent with the Act and it also serves to provide the competitors the same access to information as [the ILEC] and puts them on the same parity position." Excerpt of Directors' Conference, *Petition for Arbitration of the Interconnection agreement between BellSouth Telecommunications, Inc. and MCI Metro Access Transmission Services, LLC, and Brooks Fiber Communications of Tennessee, Inc., Pursuant to Section 252(b) of the Telecommunications Act of 1996*, Docket No. 00-00309 (Dec. 18, 2001) at p. 8.

³⁶⁹ See *Gallant/Lehmkuhl Declaration* at ¶¶ 5, 14.

provide the information to the terminating customer.³⁷⁰ Moreover, by relying on their own databases, CLECs would save the cost of paying each time they “dip” into the ILEC database, a savings that could be passed on to retail customers.³⁷¹ Enabling CLECs to obtain batch downloads of CNAM data would also enhance CLECs’ ability to offer innovative services, a capability the ILECs already possess. For example, with batch access a new entrant could offer CNAM over TCP/IP signaling rather than on the SS7 network. This would reduce cost, facilitate the development of new services, and facilitate the integration of caller ID service with emerging voice over Internet applications.³⁷² In essence, then, the batch file would allow the CLEC to use the database in exactly the same readily accessible manner as the ILEC.

There is no doubt that download access is technically feasible.³⁷³ State commission workshops have demonstrated the technical feasibility of bulk access. Specifically, the Arizona Corporation Commission staff, in its report on Qwest’s 271 compliance, noted that “[a]t the conclusion of the Workshop, all parties concluded that the type of access requested by WorldCom, *i.e.*, a download or copy of Qwest CNAM database is technically feasible.”³⁷⁴ Ameritech Michigan has filed a tariff providing for CNAM downloads in response to the orders of the Michigan Public Service

³⁷⁰ See *id.* at ¶¶ 15-16. As the Georgia Commission found, “[t]he evidence supports the conclusion that MCIW will be able to provide better service if BellSouth provided CNAM via electronic download . . .” *Petition of MCI Metro Access Transmission Services, LLC and MCI WorldCom Communications, Inc. for Arbitration of Certain Terms and Conditions of Proposed Agreement with BellSouth Telecommunications, Inc. Concerning Interconnection and Resale Under the Telecommunications Act of 1996*, Docket No. 11901-U, Order (Feb. 6, 2001) at p. 9.

³⁷¹ *Gallant/Lehmkuhl Declaration* at ¶ 13.

³⁷² *Id.* at ¶ 12.

³⁷³ *Id.* at ¶¶ 8-9.

³⁷⁴ *Qwest Communication Inc.’s Section 271 Application*, ACC Docket No. T-00000A-97-0238, Second Supplemental Report on Qwest’s Compliance (Feb. 2002) at ¶58.

Commission.³⁷⁵ Since such access is technically feasible and CLECs are impaired without it, the Commission should clarify that batch access is required by the Act.

The Commission has previously held that LECs may not restrict competitors access to the ILEC Directory Assistance database to per-query access, because “per-query access does not constitute equal access for a competing provider that wants to provide directory assistance from its own platform.”³⁷⁶ The same is true for the CNAM database. The Commission should therefore explain that ILECs are required to make the CNAM database available by download with updates to the database on a regular basis in the same manner used for the directory assistance database.

d) DA Databases

Directory Assistance Listing (DAL) refers to the subscriber records used to create databases to respond to requests for directory information, including, but not limited to, name, address, and phone numbers.

In section 251(b)(3), Congress specifically required that all LECs permit nondiscriminatory access to directory listings.³⁷⁷ The Commission should clarify that directory assistance databases also must be unbundled under section 251(c)(3).

In the Executive Summary of its *UNE Remand Order*, the Commission stated that “the order concludes that the following network elements must be unbundled: . . . call related databases, including. . . Operator Services/Directory Assistance databases.”

³⁷⁵ CNAM Download Agreement Between Michigan Bell Telephone Company d/b/a Ameritech Michigan and CLEC (Aug. 24, 2001).

³⁷⁶ *Implementation of the Telecommunications Act of 1996: Telecommunications Carriers' Use of Customer Proprietary Network Information and Other Customer Information, Implementation of the Local Competition Provisions of the Telecommunications Act of 1996, Provision of Directory Listing Information under the Telecommunications Act of 1934, As Amended*, CC Dockets No. 96-115, 96-98 nd 99-273, 14 FCC Rcd 15550 (Jan. 23, 2001) at ¶152.

³⁷⁷ 47 U.S.C. § 251 (b)(3); *UNE Remand Order* at ¶¶ 441, 444.

Unfortunately, while the Commission's conclusion is clear, the unbundling rules do not mention OS/DA databases. And in the *Order* itself, the Commission declined to address specifically whether CLECs would be impaired in their ability to provide telecommunications services without access to the DA database – apparently because the Commission understood that competitors already were guaranteed nondiscriminatory access to the DAL under section 251(b)(3).

Some state commissions have concluded from this, and from the Commission's decision not to impose a specific pricing structure on DAL in its *DAL Order*, that the Commission did not find DA databases to be a UNE. While this might not have mattered if the state commissions had properly concluded that cost-based rates are independently required by the non-discriminatory access provision in section 251(b)(3), the state commissions in fact are allowing ILECs to impose above-cost rates on DAL.³⁷⁸

³⁷⁸ See *Petition of MCI Metro Access Transmission Services, LLC et al. for Arbitration of an Interconnection Agreement with Southwestern Bell Telephone Company Under the Telecommunications Act of 1996*, Missouri Public Service Commission Case No. TO-2002-222, Arbitration Order (Feb. 28, 2002) at p. 37 [“In the *UNE Remand Order*, the FCC determined that nondiscriminatory access to the ILEC's underlying databases used in the provision of OS/DA is required only under Section 251(b)(3) and not under Section 251(c)(3) of the Act. . . SWBT states that the FCC's approval [of its 271 applications] confirms that SWBT is not obligated to provide DAL as a UNE. Thus, SWBT argues, [and staff and the Commission agree], that market-rates apply.”] As a result, there is a 500% difference between the rates SBC charges in Missouri and the rates the Texas PUC found to be cost-based. *Lehmkuhl Declaration* at ¶ 6. Similarly, the Colorado Commission declined to address DAL pricing because it found that the FCC did not recognize the DAL database as a UNE. *U.S. WEST Communications, Inc.'s Statement of Generally Available Terms and Conditions*, Colorado Public Utilities Commission Docket No. 99A-577, Order (Nov. 13, 2001) at p. 107. But see *Application by Pacific Bell Telephone Company for Arbitration of an Interconnection Agreement with MCI Metro Access Transmission Services, L.L.C. Pursuant to Section 252(B) of the Telecommunications Act of 1996*, California Public Utilities Commission Decision 01-09-054, Opinion Approving Arbitrated Interconnection Agreement (Sept. 20, 2001) at p. 9 (“While the FCC has not adopted a definitive methodology for pricing DAL, it gives every indication that market pricing is not acceptable.”)

This Commission should therefore clarify that DAL must be unbundled in accordance with the requirements of section 251(c)(3). This will ensure that there is no doubt that access must be provided at cost-based rates. Moreover, because section 251(c)(3) is an independent statutory provision, the Commission should apply that provision if the prerequisites are met, even if doing so would impose no additional requirements on ILECs beyond those set forth in section 251(b)(3).

There is no doubt that DAL meets the prerequisites for unbundling under section 251(c)(3). The Commission has acknowledged that ILECs “continue to maintain a near total control over the vast majority of local directory listings that form a necessary input to the competitive provision of directory assistance.”³⁷⁹ The Commission has also recognized that ILECs “have the ability to leverage their monopoly control of their DA databases into market dominance.”³⁸⁰ Consequently, nondiscriminatory access to the incumbents’ DA databases at reasonable rates is imperative for a carrier to offer a competitive DA product. Indeed, in relieving the ILECs’ of the obligation to offer DA *services* as an unbundled network element (UNE) under certain circumstances, the Commission relied on the fact that competitors themselves could offer such services *based on their access to the underlying databases*.³⁸¹ The Commission should clarify that CLECs are entitled to DA databases as a UNE under section 251(c)(3).

3. OSS

Operation Support Systems (OSS) are essential for competitors to service customers in a timely, efficient, and accurate manner.³⁸² As the California PUC stated in

³⁷⁹ See *Provision of Directory Listing Information Under the Telecommunications Act of 1934, as Amended*, FCC Rcd 2736 (2001) at ¶ 3 (*DAL Order*). See also Declaration of Michael Lehmkuhl, provided here as Attachment G (*Lehmkuhl Declaration*) at ¶¶ 4-6.

³⁸⁰ *DAL Order* at ¶ 3.

³⁸¹ *UNE Remand Order* at ¶ 441. See also, *DAL Order* at ¶¶ 3, 6 and 10.

³⁸² See Declaration of Sherry Lichtenberg provided here as Attachment H (*Lichtenberg Declaration*) *passim*.

its comments in the *UNE Remand* proceeding, the availability of OSS “is where the rubber meets the road in development of a competitive telecommunications market.”³⁸³ The Commission has consistently found that access to OSS is integral to the ability of competing carriers to enter the local market,³⁸⁴ and that carriers are impaired without such access.³⁸⁵ Indeed, the Commission previously concluded “a requesting carrier that lacks access to the incumbent’s OSS ‘will be severely disadvantaged, if not precluded altogether, from fairly competing.’”³⁸⁶

There has been no change in the marketplace or technology since the Commission issued its *UNE Remand Order* to justify the Commission’s modification of its previous decisions with regard to the definition or unbundling requirements established for OSS.³⁸⁷ MCI alone has spent \$100 million in the past two years on software development to build the necessary OSS interfaces.³⁸⁸

³⁸³ Comments of the People of the State of California and the California Public Utilities Commission, CC Docket Nos. 96-98, 95-185 (May 26, 1999) at p. 5. “Nothing can ‘impair’ a competitor’s successful entry into a market more effectively than slow, inefficient and inaccurate methods for processing customer orders and service requests.”

³⁸⁴ See, e.g., *Local Competition Order* at ¶¶ 6-10.

³⁸⁵ *UNE Remand Order* at ¶ 424. Competitors need access to OSS where CLECs are using their own facilities or ordering unbundled loops, as well as when they are reselling ILEC products or using UNE-P. For example, access to OSS is necessary to order unbundled loops to be connected to a facilities-based carriers switch, to initiate and track local number portability requests, to report and correct trouble tickets, and to receive billing data from the ILEC. Access to the CSR is necessary to determine a customer’s needs, to identify information on the type of circuit (LFACS), and to place the order itself. *Lichtenberg Declaration* at ¶¶ 8-9. As the Commission recognized in the *UNE Remand Order*, there is no sufficient substitute for the ILEC’s OSS and customer care systems for UNE orders. *UNE Remand Order*, para. 434. Therefore, as the Commission has found in its *Local Competition* and *UNE Remand Orders*, access should not be limited to situations where the competitor is ordering other UNEs or resold services from the ILEC.

³⁸⁶ See *UNE Remand Order* at ¶ 421, citing the *Local Competition Order* at ¶¶ 516-518.

³⁸⁷ See *Lichtenberg Declaration* at ¶ 2.

³⁸⁸ *Huyard Speech to NARUC*.

Access to all five OSS functions identified by the Commission remains crucial. Discriminatory treatment with regard to any of the five key functions – pre-ordering, ordering, provisioning, repair and maintenance, or billing – will severely compromise competitors' ability to provide service comparable to that of the ILEC.³⁸⁹

Pre-Order. Pre-ordering includes all the necessary information to formulate an accurate order for a customer, such as information about the telephone number, services and features, due date, customer services records and address.³⁹⁰ It also includes loop qualification information,³⁹¹ without which a competitor's ability to provide service is materially diminished. If a CLEC cannot obtain information on a customer's address or features, for example, and must instead rely on information provided by the customer, the chance of erroneous orders is dramatically increased. If a CLEC cannot obtain information on available telephone numbers or due dates, it has no way of offering a choice of numbers or due dates to its customers. And if a CLEC cannot determine whether the loop is capable of supporting the advanced services equipment the requesting carrier intends to install, incumbent LECs would be able to discriminate against other xDSL technologies in favor of their own xDSL technology.³⁹²

Ordering and Provisioning. The need for access to the ordering and provisioning functions is equally apparent. And the incumbent must provision CLEC orders in substantially the same time and manner and with the same quality as it provisions orders for its own retail customers. If the ILEC is able to more accurately and quickly provision

³⁸⁹ See *Lichtenberg Declaration* at ¶¶ 3-20.

³⁹⁰ See *Application by SBC Communications Inc., et al. Pursuant to Section 271 of the Telecommunications Act of 1996 to Provide In-Region, InterLATA Services in Texas*, Memorandum Opinion and Order, 15 FCC Rcd 18354 (2000) at ¶ 148, n. 395 (TX 271 Order). See also, *Lichtenberg Declaration* at ¶¶ 7-10.

³⁹¹ See *Lichtenberg Declaration* at ¶ 11.

³⁹² *Id.*

orders than competitors, competitors will be at a severe disadvantage in the marketplace.³⁹³

Maintenance and Repair. Additionally, the ability of competitors to troubleshoot and respond to customer service problems quickly and effectively is crucial to a CLEC's success in the marketplace.³⁹⁴ When a CLEC is providing resold service or service using UNEs, many of a customer's troubles will be caused by problems with ILEC facilities. As the Commission has noted, ILEC network problems appear to CLEC customers to be CLEC problems.³⁹⁵ The CLEC must, therefore, be able to access ILEC maintenance and repair information and tools in order to diagnose and solve customer complaints that emanate from ILEC facilities.³⁹⁶

Billing. Access to the ILEC OSS billing function and information is also essential.³⁹⁷ There are two basic billing functions: (i) complete, accurate and timely reports on the service usage of competing carriers' customers, referred to as "service usage reports", and (ii) complete, accurate and timely wholesale bills.³⁹⁸ As the Commission has found, service usage reports are essential because they allow competitors to track and bill the services their customers use.³⁹⁹ Wholesale bills are

³⁹³ *Id.* at ¶¶ 12-15.

³⁹⁴ *Id.* at ¶ 16.

³⁹⁵ See *Application of Verizon New York, et al., for Authorization to Provide In-Region, InterLATA Services in Connecticut*, Memorandum Opinion and Order, 16 FCC Rcd 14147 (2001) at App. D, ¶ 39.

³⁹⁶ *Lichtenberg Declaration* at ¶ 16.

³⁹⁷ *Id.* at ¶ 17.

³⁹⁸ See *Application of Verizon Pennsylvania, et al., for Authorization to Provide In-Region, InterLATA Services in Pennsylvania*, Memorandum Opinion and Order, 16 FCC Rcd 17419 (2001) at ¶ 13 (*PA 271 Order*).

³⁹⁹ *PA 271 Order* at ¶13; *TX 271 Order* at ¶ 210.

essential because CLECs must monitor the costs they incur in providing services to their customers.⁴⁰⁰

Business Processes. The business processes associated with the specific OSS interfaces, such as change management procedures, carrier-to-carrier testing processes, and help desk support, are also fundamental to a competitor's ability to provide services. In an ever-changing marketplace, a BOC must have in place procedures that enable smooth deployment of new functionality as the need arises. An effective change management process is necessary in order to enable CLECs to request new changes, to ensure they receive proper notification and documentation regarding these changes, and to test the effect of such changes before they are put in place.⁴⁰¹ Similarly, adequate help desk support is necessary for competing carriers to resolve quickly and effectively any problems that do develop with deployment of a systems change or with a specific customer complaint.

Thus, there can be no real dispute that efficient and effective OSS is critical to opening local markets to meaningful competition, and must be available on a nondiscriminatory basis and scalable to meet future demand.


⁴⁰⁰ PA 271 Order at ¶ 13, *Lichtenberg Declaration* at ¶ 19.

⁴⁰¹ See, e.g., PA 271 Order at App. C., ¶ 41; TX 271 Order at ¶ 126; *Lichtenberg Declaration* at ¶ 22.

IV. CONCLUSION

For all the reasons stated above, the Commission should continue to adhere to the legal framework established in the Act and apply the standards for impairment adopted in the *UNE Remand Order*. Accordingly, the Commission should require the incumbent LECs to provide requesting carriers with nondiscriminatory access to the UNEs discussed above, as well as combinations, such as EELs and UNE-P, and fiber-fed loops, at cost-based rates. The Commission should reject any attempts to impose additional limits on the ability of competitive carriers to obtain and use these or other UNEs and UNE combinations.

Lisa B. Smith
Richard S. Whitt
Henry G. Hultquist
Kimberly Scardino
WorldCom, Inc.
1133 19th Street, NW
Washington, DC 20036
(202) 736-6478
Kimberly.Scardino@wcom.com


Ruth Milkman
Gil M. Strobel
Lawler, Metzger & Milkman
1909 K Street, NW
Suite 820
Washington, DC 20006
(202) 777-7700
gstrobel@lmm-law.com

Dated: April 4, 2002